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### Trust in the police and police legitimacy through the eyes of teenagers

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## **Trust in the police and police legitimacy through the eyes of teenagers**

**Diego Farren, Mike Hough, Kath Murray and Susan McVie**

### **Abstract**

Earlier sweeps of the International Self Report Delinquency Survey (ISRD) made no attempt to cover teenagers' attitudes towards criminal justice institutions. ISRD3 goes a little way to filling this gap by including a short suite of questions on trust in the police and perceptions of police legitimacy, that sets out to see if well-established insights into adults' attitudes, built on procedural justice theory, also hold true for teenagers. Results are presented in this chapter. To anticipate our conclusions, the results very largely reflect those that have emerged internationally for adult samples: that trust in procedural justice is a precondition for legitimacy, reducing preparedness to break the law, and that the quality of teenagers' experience of the police is a clear determinant of their trust in the police.

**Key words:** procedural justice theory; legitimacy; trust in the police; youth justice

### **Introduction**

Procedural justice theory has made a substantial contribution to our understanding of policing (Tyler 2011, 2006, 2004, 1990, Hough et al. 2013, 2010) but research and theorising has focussed almost exclusively on policing adults (some exceptions are Fagan and Tyler 2005, Hinds 2009, 2007, Murphy 2015, Oberwittler and Roché 2018, Reisig and Lloyd 2009, and Roché et al. 2018). Those in late adolescence and early adulthood are however, a critically important age group for policing and constitute a key 'customer group'. Crucially, it is during this period that young people undergo what is probably the most relevant phases of legal socialization in terms of developing their attitudes and orientations towards the police (Fagan and Tyler 2005, Piquero et al. 2005). We also know that offending careers generally start in the early teens (Jennings et al. 2016: 7). Because of this, in the third wave of the ISRD project, a small amount of questionnaire space was devoted to the procedural justice theory (see Box 1). Also taking into account criticism of proactive stop and search policies (or stop-and-frisk in American English) in the United Kingdom (Murray 2014, Scott 2015, StopWatch 2017) and the impact on teenagers (Reid Howie 2002, Flacks 2017), an additional set of questions on stop and search encounters was included in the England and Scotland questionnaire (see Box 2).

Using data from the ISRD3 project, this chapter helps to fill the gap in the analysis of procedural justice on adolescents. The chapter, like the rest of the book, focusses on the five countries that formed a sub-study of the overall ISRD3 project: UPYC (Understanding and Preventing Youth Crime). These are France, Germany, the Netherlands, the United Kingdom and the United States<sup>1</sup>. However, for some analyses, we use the full ISRD3 dataset for reasons explained below.

Procedural justice theory is a general theory about power, authority and compliance, but – as in this chapter – its focus is often specifically on the police and their relationships with the public. We follow the version of the procedural justice theory as conceptualized by Jackson and colleagues (Jackson et al. 2011, Hough et al. 2013), according to which the key tenets of procedural justice theory, as they apply to policing, are about the relationships that hold between:<sup>2</sup>

- the quality of police treatment of people (procedural fairness)
- public trust in the police (trust)
- people's perceptions of police legitimacy (legitimacy)
- and their consequent preparedness to comply and cooperate with the police and comply with the law (compliance/cooperation)

Procedural fairness is the main dimension of trust in the police that predicts police legitimacy and, through legitimacy, also shapes levels of compliance. In other words, the manner in which police approach citizens is the factor that most shapes their trust in the police and perceptions of legitimacy – and those who confer legitimacy on the police are more likely than others to comply with the law and cooperate with police and legal authorities.

This chapter sets out to test the validity of this version of procedural justice theory as a framework for analysing teenagers' attitudes to the police, the law and law-breaking. The results are divided into three sections. Section 1 examines the relationships between trust in the police, people's perceptions of police legitimacy, and intention to offend (as a proxy for compliance) amongst all those countries participating in the ISRD3 project that included the procedural justice module.<sup>3</sup> The

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<sup>1</sup> Most of the chapters in this book focus on the five UPYC countries, counting the UK as a single country. In this chapter we have treated England and Scotland as different countries, for reasons explained below.

<sup>2</sup> Conceptualizations of what legitimacy actually means vary widely amongst studies (Bottoms and Tankebe 2012, Hough 2013, Hough et al. 2014, 2017, Jackson and Bradford 2010, Jackson and Gau 2016, Johnson et al. 2014, Reisig et al. 2007, Tankebe et al. 2016, Tyler 2003, Tyler and Jackson 2013) with some even including forms of trust (like procedural justice) as dimensions of legitimacy (Gau 2011, 2015, Gau et al. 2012, Murphy 2015, Reisig et al. 2007, Tankebe 2013, Tankebe et al. 2016). Hough, Jackson and Bradford (2013: 333) clearly differentiate between trust and legitimacy by stating that "[t]rust is believing that the police have the right intentions and are competent to do what they are tasked to do; legitimacy is recognizing and justifying police power and authority" (see also Jackson and Gau 2016).

<sup>3</sup> At the time of writing this chapter, data on the procedural justice module was available for 27 countries, counting England and Scotland as two separate countries. The final number is expected to be around 35.

aim is to test the “invariance thesis” (Wolfe et al. 2016), that is, whether the relationships between trust, legitimacy and cooperation are consistent across countries. Although this book’s focus is on the countries that formed the UPYC study, the nature of the invariance hypothesis prompted us to broaden the dataset in this section of the chapter, and include data for all available ISRD3 participating countries. It is hypothesised that the relationship between trust and legitimacy observed amongst adults by cross-national studies (Hough et al. 2017, 2014, 2013) will also hold for teenagers.

In Section 2 we test the theoretical validity of the relationships proposed amongst the dimensions of trust and legitimacy and cooperation. Jackson and colleagues (Jackson et al. 2011, Hough et al. 2013) define trust and legitimacy as having three dimensions each. The dimensions of trust are: trust in procedural fairness; trust in police effectiveness; and trust in distributive fairness. The dimensions of legitimacy are: the perceptions of having an obligation to obey the police; moral alignment with the police; and views about corruption or lawfulness. Probably the most important thesis amongst procedural justice theories is that procedural fairness is the main predictor of legitimacy, even more important than instrumental motives like outcome favourability, distributive justice or police competence (Tyler 2003, 1990, Tyler and Huo 2002). This relates to one of the more robust findings emerging from comparative empirical tests of procedural justice theory with adults<sup>4</sup> – that amongst the dimensions of trust in the police, procedural fairness has the strongest effect on legitimacy (Bradford 2014, Hough et al. 2017, 2014, 2013, Jackson et al. 2015, 2012). Using the UPYC dataset, section 2 examines whether these results can be replicated for teenagers.

Section 3 contributes to literature on the impact of police-initiated contact on perceptions of police legitimacy (Bradford 2017, Bradford et al. 2009, Delsol and Shiner 2015, 2006, Flacks 2017, Gau and Brunson 2010, Hough 2013, Maillard et al. 2016, Murray and Harkin 2017, Sharp and Atherton 2007, Tyler and Fagan 2012). Focusing on the potentially asymmetrical effects of police contact (Skogan 2006), it is hypothesized that: contact with the police has a negative effect on legitimacy; that experiences of procedural *un*fairness especially damage perceptions of legitimacy; and that good experiences have either a small positive effect, or no effect at all. Note that the analysis in this section draws only from the UK dataset.

The UK findings form an important part of the procedural justice jigsaw, as they demonstrate that in at least two jurisdictions, actual experience of the police works as a powerful shaper of attitudes

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<sup>4</sup> Whilst this relationship is found in Western European and North American countries, there are exceptions, especially in developing countries and the global South (Bradford et al. 2014, Jackson et al. 2014, Tankebe 2009a).

from an early age. To explain, England and Scotland have followed markedly different policies on stop and search over the last decade. In Scotland, the tactic has been used more intensively, compared to England, principally on a non-statutory basis (that is, where in theory at least, the search is carried out with consent) and overwhelmingly on teenagers (Murray 2015, 2014, Lennon and Murray 2016). Prompted by intense media and parliamentary pressure, a series of major policy and legislative reforms introduced from around mid-2015 onward<sup>5</sup> led to a steady fall in the number of recorded searches in Scotland. However, ISRD3 fieldwork had been completed prior to this policy shift, providing us with a neat natural experiment allowing us to compare the impact on young people's perceptions of the police that resulted from different levels and styles of use of stop and search. England by contrast became more cautious about its use earlier than Scotland, following decades of sustained criticism (Lennon and Murray 2016).

## Methods

The overall methodology of ISRD3 is covered in this book's introduction, and also in Enzmann et al. 2018. In brief, the survey was the third in a series that was originally built around modules of questions asking schoolchildren in the 7<sup>th</sup> to 9<sup>th</sup> grades (aged 12-16) about their self-reported offending and experience of victimisation. While ISRD was intended to estimate the prevalence of offending and victimisation, it was also designed to enable testing of different criminological theories, particularly in the third sweep. Most participating countries sampled schools in two medium-sized or large cities, with samples designed to be representative of these cities (rather than the respective country). The survey was administered in school classrooms, using internet-based self-completion questionnaires wherever possible. The dataset for the third sweep of ISRD covered 28 countries at the time of writing, (counting England and Scotland as two countries) with a combined sample of 62,636.

Table 1 lists the participating countries, and shows which countries included the Procedural Justice module, broken down by grade. Amongst these, only one (Austria) did not include the procedural justice module for any grade. In most other countries, the procedural justice module was only included for 9<sup>th</sup> grade students. Note that to keep the samples within countries as similar as possible, we only use 9<sup>th</sup> grade data when analysing groups of countries, while for UK only analysis, we use 8<sup>th</sup> and 9<sup>th</sup> grade data.

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<sup>5</sup> The Criminal Justice (Scotland) Act 2016 put stop and search on a statutory basis, and introduced a requirement for a Code of Practice.

**Table 1. Countries and grades including the Procedural Justice module<sup>6</sup>**

<i>Country</i>	<i>Grade</i>		
	7	8	9
Armenia	X	X	X
Austria			
Belgium			X
Bosnia and Herzegovina	X	X	X
Cape Verde			X
Croatia	X	X	X
Czech Republic			X
Denmark	X	X	X
England		X	X
Estonia	X	X	X
Finland			X
France	X	X	X
Germany			X
India			X
Indonesia			X
Italy			X
Kosovo	X	X	X
Lithuania			X
Macedonia			X
Netherlands			X
Portugal			X
Republic of Serbia			X
Scotland		X	X
Slovakia			X
Switzerland			X
Ukraine	X	X	X
United States			X
Venezuela			X
Total	8	10	27

<sup>6</sup> Note that in some countries, other grades were purposefully included in the sample; and sometimes fieldwork errors mean that some respondents completed the procedural justice module when they were in grades that were not meant to complete the module. The converse may also be true, i.e. there are some respondents belonging to grades that were supposed to complete the procedural justice module who did not have the opportunity to do so. The table shows the planned strategy, ignoring these errors.

### *The Procedural Justice (PJ) Module*

The main variables used here are those included in the procedural justice module (see Box 1). These questions aimed to operationalise the two main concepts of procedural justice theory as conceptualized by Jackson and colleagues (Jackson et al. 2011, Hough et al. 2013): trust and perceived legitimacy<sup>7</sup>. Both concepts have three dimensions. The dimensions of trust are: trust in distributive fairness (10.1), trust in police effectiveness (10.2), and trust in procedural fairness (the only dimension of trust measured by more than one item, i.e. 10.3, 10.4 and 10.5). The dimensions of perceived legitimacy are: obligation to obey (10.6), moral alignment (the only dimension of legitimacy measured by more than one item, i.e. 10.7a, 10.7b, and 10.7c), and lawfulness (10.8). In the analyses that follow, the values of two variables (i.e. 10.1 and 10.8) have been inverted so that higher values always reflect the positive end of the relevant dimensions.

#### **Box 1: The PJ module**

**The following questions ask what you think about the police. Normally, such questions are meant for adults and probably you have never thought about this before. But we feel that young people like you also have an opinion and can also answer questions like this.**

10.1) When victims report crimes to the police, do you think the police treat people of different races, different ethnic groups, or of foreign origin equally? [0: "equally" 1: "some worse"]

10.2) If a violent crime or a burglary happened near where you live and the police were called, how quickly do you think they would arrive at the scene? [0: "extremely slowly" 10: "extremely quickly"]

10.3) Would you say the police generally treat young people with respect?  
[1: "(almost) never" 2: "sometimes" 3: "often" 4: "(almost) always"]

10.4) How often, would you say, the police make fair decisions when dealing with young people?  
[1: "(almost) never" 2: "sometimes" 3: "often" 4: "(almost) always"]

10.5) How often would you say the police explain their decisions and actions to young people?  
[1: "(almost) never" 2: "sometimes" 3: "often" 4: "(almost) always"]

10.6) How you think about your duty towards the police? To what extent is it your duty to do what the police tell you, even if you don't understand or agree with the reasons?  
[0: "not at all my duty" 10: "completely my duty"]

10.7) To what extent do you agree or disagree with the following statements about the police?  
[1: "disagree strongly" 2: "disagree" 3: "neither/nor" 4: "agree" 5: "agree strongly"]

- a. The police generally have the same sense of right and wrong as I do;
- b. The police generally understand young people's values
- c. I generally support how the police usually act

10.8) Do you think the police take bribes, and if yes, often? [0: "never" 10: "always"]

<sup>7</sup> They were adapted from the 'trust in justice' module of the 2010 European Social Survey (cf. Jackson et al. 2011). Constraints of space in the questionnaire limited the number of items that we could include.

### *The Stop and Search (S&S) Module*

As part of the ISRD3 project, national teams had the option to include additional country-specific modules. In the United Kingdom, an additional module asked students about their experience of being stopped by the police, as shown in in Box 2.

**The following questions are about being stopped and searched by a police officer.**

**This means that an officer stopped you in the street or another public place and asked you to show them what was in your pockets or bag. Please don't report occasions where you were just stopped and asked questions.**

12.1) Have you ever been stopped and searched by a police officer? [0: "No" 1: "Yes"]

12.2) How often have you been stopped and searched by a police officer in the last 12 months?

[1: "Once" 2: "Twice" 3: "3 to 5 times" 4: "6 or more times" 5: "I have not been stopped in the last 12 months"]

**Now, thinking of the most recent time you were stopped and searched by a police officer, please answer the following questions.**

12.3) When did this happen? [1: "Within the last week" 2: "Within the last month" 3: "Within the last 6 months" 4: "Within the last 12 months"]

12.4) Please describe the behaviour of the police officer(s) who stopped and searched you

[1: "Not at all" 2: "A bit" 3: "Quite" 4: "Very"]

- a. He/she was polite and respectful
- b. He/she was professional
- c. He/she was fair

12.5) Did the police officer(s) do the following things: [0: "No" 1: "Yes"]

- a. Ask you if you were happy to be searched?
- b. Explain the reason for why you were being stopped and searched?
- c. Give you a written explanation for why you were stopped and searched?

12.6) Did you understand the reason for being searched by the police on this occasion? [0: "No" 1: "Yes"]

12.7) Did you give your agreement to be searched by the police on this occasion? [0: "No" 1: "Yes"]

12.8) Which of the following things was the police officer looking for? Please tick all that apply (a. Drugs; b. Alcohol; c. Weapons; d. Stolen property; e. Firearms; f. Fireworks; g. Something else (please specify); h. I don't know) [0: "No" 1: "Yes"]

12.9) Did the police officer find anything when you were stopped and searched? [0: "No" 1: "Yes"]

12.10) How did you feel after being stopped and searched? [1: "Not at all" 2: "A bit" 3: "Quite" 4: "Very"]

- a. I felt embarrassed
- b. I felt worried or scared
- c. I felt annoyed
- d. It made me feel safer on the streets

12.11) Did you tell your parents that you had been stopped and searched? [0: "No" 1: "Yes"]

12.12) Was there anything that could have been done to improve your experience of being stopped and searched? [String variable]



### *Scales measuring trust and legitimacy*

In this chapter we generally use a scale measuring trust in the police that combines dimensions of perceived procedural fairness, perceived distributive fairness and perceived effectiveness. Similarly, we have generally used a scale measuring perceived legitimacy that combines the three dimensions of the construct: moral alignment, moral obligation to obey and lawfulness. However, in Section (b) of our findings, using the six UPRC countries to examine in detail the relationships between trust and perceived legitimacy, we sometimes disaggregate the dimensions of each concept, using scales or single item measures for each dimension. We make it clear in the text when measures of these sub-dimensions are used.

The scales used to measure the two overarching concepts of trust and legitimacy should be regarded as formative measures. However, in the structural equation model in Results Section (b), the scales measuring trust in procedural fairness and moral alignment should be regarded as reflective measures.<sup>8</sup> All constructed scales are row mean scales.<sup>9</sup>

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<sup>8</sup> Formative and reflective measures differ with respect to the assumed direction of causality between measures and constructs (for a good summary see Jarvis et al. 2003). Reflective measures assume that respondents' orientation towards the underlying construct determines the answers they give to the questionnaire, so that the different items are taken as interchangeable and high correlations between them are expected. By contrast, formative measures assume that the answers given to the items in the questionnaire form the underlying construct. In this case the items cease to be interchangeable and low correlations may be expected. For a more extended discussion regarding the use of formative and reflective measures within the procedural justice framework, see Jackson et al. 2015, Bradford et al. 2017.

<sup>9</sup> To deal with the fact that variables included in the construction of a given formative measure may have different number of answer categories (see Box 1), all individual items are standardized into Percentage Of Maximum Possible (POMP) before creating the scales (see Cohen et al. 1999). The logic behind POMP values is explained best through an example. If a variable has four answer categories, then in the transformed POMP variable the first answer category would be converted into zero, the second one into 33.3, the third one into 66.6, and the fourth one into 100. When forming a row mean scale out of two variables, again with four answer categories each, then someone answering both questions with value four would become a POMP value of 100 in the scale and someone giving for both questions the value one would get the POMP value zero. Someone answering one of these questions with two and the other with three would get a POMP value of  $(33.3+66.6)/2$ , i.e. about 50.

The construction of the general formative measures of trust and legitimacy needs further explanation. To keep the weight of the dimensions the same in the construction of the general trust and legitimacy scales, first the average values of the dimensions with more than one item is estimated (i.e. procedural fairness in the case of trust and moral alignment in the case of legitimacy) and then an average scale is estimated using the raw items (transformed into POMP values) for dimensions represented by only one questions and the previously estimated scales for the dimensions with more than one item in the questionnaire. In this way each dimension gets the same weight in the final scales.

### *Control variables*

Models controlling for the effect of other variables include age, gender, self-control<sup>10</sup> (see Wolfe 2011), migration and family status. Age is a continuous variable, gender is a dummy (with 1 for males and 0 for females), migration status is a dummy (with 1 for migrants and 0 for natives), and family status is a dummy (with 1 for living with both biological parents, and 0 for everything else). Models based on either the whole ISRD3 or UPYC datasets also include country fixed effects, while the analyses using UK data only include city and grade dummies.

### *Measures of compliance*

We decided to use a measure of *intention* to offend as a proxy for compliance, rather than self-reported offending. This was partly because we wanted to pre-empt the criticism that past contact with the police may be an endogenous predictor of self-reported crime (in other words, past contact with the police may be the result of self-reported crime, not the predictor of it). Note however that we have argued the case for using self-report measures of offending as dependent variables elsewhere in a more detailed examination of stop-and-search in the UK (Murray et al. 2018, under review) and that we use a self-reported crime scale in another chapter in this book (Farren and Hough, 2018). We think that both types of measure are defensible when testing procedural justice hypotheses.

Two questions are included as measures of compliance that ask about preparedness to offend.<sup>11</sup> Both are part of vignette questions in which the respondent must imagine a fictitious situation. The first situation is described as follows:

**Imagine:** *You own a two year old smartphone. You convince a classmate that this old model is great and you do not say that there is a new model that is much better and cheaper. You are able to sell your classmate your old smartphone for a price that allows you to buy yourself the brand new model.*

The preparedness to offend question that follows this vignette is stated like this:

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<sup>10</sup> Self-control is included in this chapter as a simple row mean scale, i.e. as a formative measure, in all models including controls. The self-control scale is included in the ISRD3 official dataset under the 'selfc' name.

<sup>11</sup> It is of course very unlikely that the police would be involved if such behaviour in school came to light, though at least in UK law, it would constitute the offence of fraud by false representation under Section 2 of the 2006 Fraud Act.

9.2) Can you imagine actually doing this? [1: "Not at all" 2:"Probably not" 3:" Undecided"  
4:"Probably yes" 5:"Yes, definitely"]

The second fictitious situation is described next:

**Imagine:** *In a big store you see something which you always wanted but couldn't afford (e.g. expensive trainers, T-shirt, CD, or perfume). You take it home without paying.*

The preparedness to offend question in this case is stated as follows:

9.4) Can you imagine actually doing this if it you were certain of not getting caught? [1: "Not at all"  
2:"Probably not" 3:" Undecided" 4:"Probably yes" 5:"Yes, definitely"]

The preparedness to offend construct is a formative measure created by averaging the POMP values of both items<sup>12</sup>.

### *Statistical Analyses*

While many previous studies rely on structural equation models to test the validity of the procedural justice theory, we opted to use different statistical models to increase the robustness of the results. The main analyses included belong either to the family of regression models or to structural equation models. All regression models are linear and were estimated using stata 14. The structural equation models in Results Section (b) is generalized (i.e. model categorical variables with non-linear regressions) and was estimated using Mplus 7. Finally all bivariate analyses of independence were run in SPSS.

Weights are applied only for descriptive analyses. For all multivariate models standard errors are clustered at the level of classes.

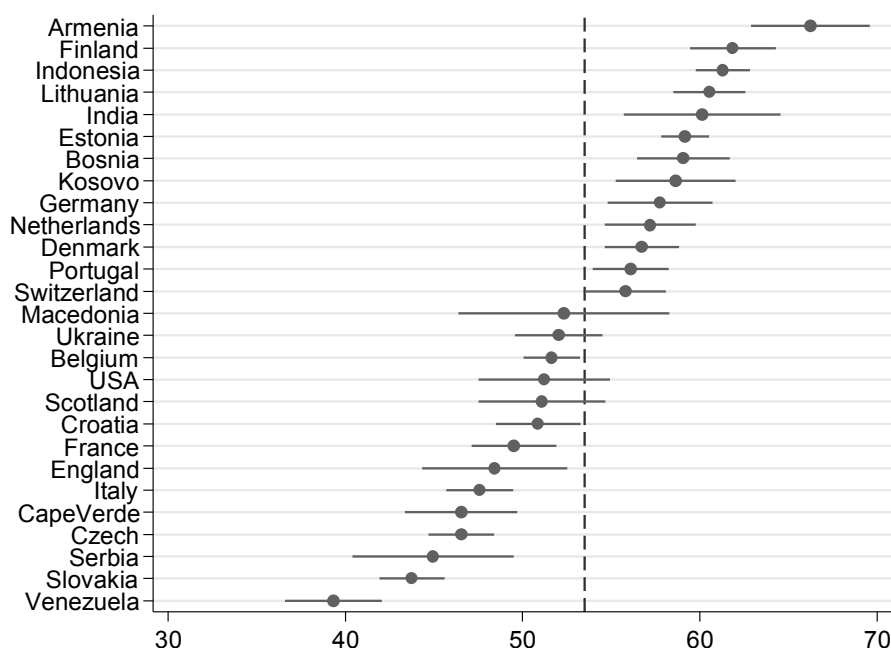
## **Results**

### *a. Validity of the procedural justice theory for young people*

In this section we check whether the relationship between trust and legitimacy posited by procedural justice theory is found for adolescents in the same way as for adults, drawing on the full ISRD3 dataset.

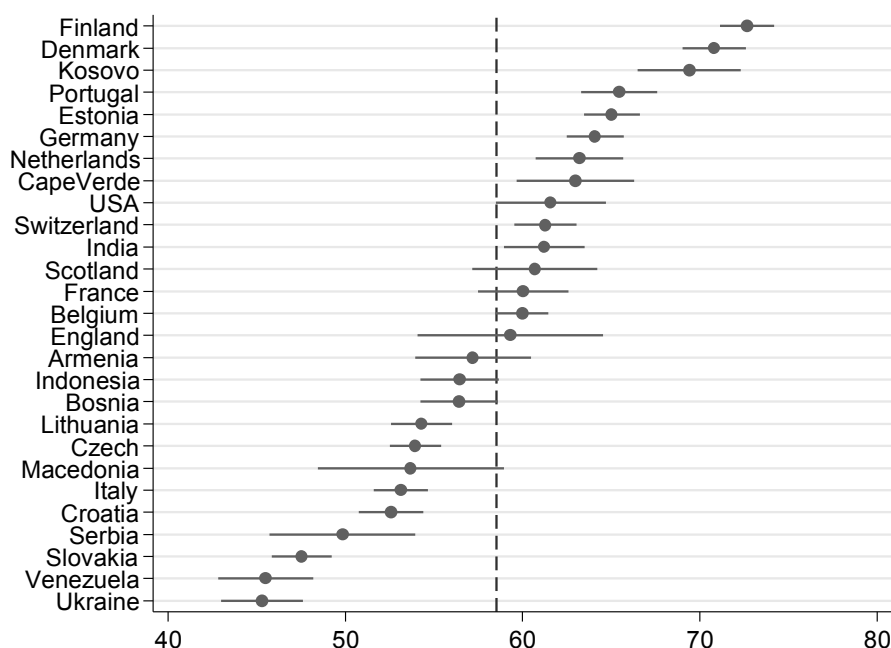
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<sup>12</sup> In the structural equation model in Results Section (b), intention to offend is a reflective measure.

**Figure 1. Mean trust POMP values amongst all ISRD3 countries**

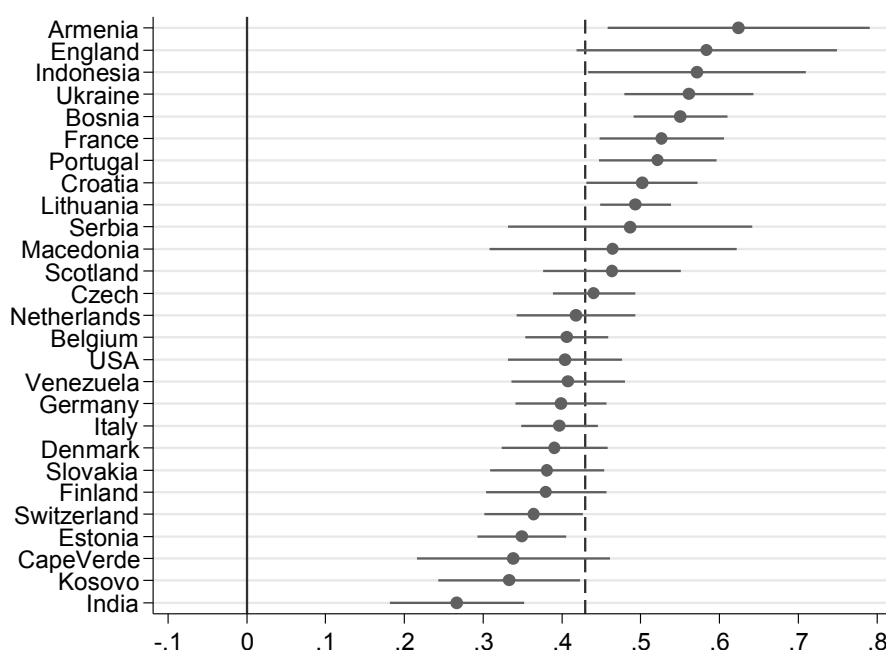
Notes: N = 18,289. Coefficients with 95% confidence intervals plotted, estimated through one single regression including country fixed effects and using cluster standard errors at the level of classes. The dotted line reflects the average level of trust amongst all countries estimated using the same regression but without country fixed effects. Both regressions include weights. Trust is a row mean scale including three dimensions: trust in police effectiveness, trust in distributive fairness, and trust in procedural fairness (see the section *scales measuring trust and legitimacy* for more information).

Figure 1 and Figure 2 show, respectively, the mean trust and legitimacy POMP values for all countries participating in the ISRD3 survey that included the procedural justice module. The dots show where each country mean falls, and the lateral bars on either side of the dots indicate the sampling error of each estimate. The figures give a rough idea of the rank order of trust and legitimacy across the ISRD3 sample, although it is likely that there is limited measurement equivalence between countries, reflecting imprecision in language translation and conceptual differences, and the rank order should not be over-interpreted. Most European countries have higher legitimacy values than elsewhere but the same is not true for trust.

**Figure 2. Mean legitimacy POMP values amongst all ISRD3 countries**

Notes: N = 18,178. Coefficients with 95% confidence intervals plotted, estimated through one single regression including country fixed effects and using cluster standard errors at the level of classes. The dotted line reflects the average level of legitimacy amongst all countries estimated using the same regression but without country fixed effects. Both regressions include weights. Legitimacy is a row mean scale including three dimensions: moral alignment, obligation to obey, and perceptions of lawfulness (see the section '*scales measuring trust and legitimacy*' for more information).

Figure 3 shows that the predictive effect of trust on legitimacy is, as expected, strongly significant in all countries. The effects can be interpreted in terms of standard deviations, e.g. the mean effect for all countries is .431 (the dotted line in the graph). This means that – other things being equal – for all countries together, an increase of one standard deviation of trust increases legitimacy on average by .431 standard deviations. A score of zero would indicate a lack of relationship. For the countries included, most coefficient estimates lie between .3 and .6.

**Figure 3. Effect of trust on legitimacy amongst all ISRD3 countries (z-values)**

Notes: N = 17,733. Coefficients with 95% confidence intervals plotted, estimated through one single regression including interactions between country dummies and trust. The model also controls for gender, age, migration, family type, self-control and country fixed effects and includes cluster standard errors at the level of classes. The dotted line reflects the average effect of trust on legitimacy amongst all countries estimated using the same regression but without interactions. No weights were included. Trust and legitimacy are row mean scales, each consisting of three dimensions (see the section 'scales measuring trust and legitimacy' for more information).

Table 2 presents a mediation analysis that shows that in most countries trust in the police is predictive of preparedness to offend; but that perceived police legitimacy is an important mediating factor. Preparedness to offend is the main dependent variable. The first column shows the predictive effect of trust on legitimacy for each country (i.e. the same values as in Figure 3). The second column shows the effect of trust on intention to offend without controlling for legitimacy, i.e. the total effect of trust for each country. The third column shows the effect of trust on intention to offend when controlling for legitimacy, i.e. the direct effect, while the fourth column shows the effect of legitimacy on intention to offend from this same model. Finally the fifth column shows the proportion of the effect of trust on intention to offend that is mediated through legitimacy and includes values only for the countries presenting a significant total effect of trust.

The effect of trust on legitimacy is significant in all 27 countries included in the analysis. Eighteen countries present a significant total effect of trust on intention to offend, but only seven show a significant direct effect. In other words, in most countries the effect of trust on intention to offend is strongly mediated through legitimacy. For all countries with a significant direct effect, this is negative, as hypothesised. The last column in the table shows that only in four countries the

mediated effect is less than 50% and that the average mediation effect amongst the countries with valid values is 66%. Finally 20 of the 27 countries have a significant negative value for the effect of legitimacy on intention to offend.

The model estimated with trust and legitimacy included (columns 3 and 4 from Table 2) shows that in only one country (Republic of Serbia) there is a significant effect from trust but not from legitimacy. In all countries with a significant legitimacy and trust value, legitimacy is stronger than trust – with the exception of Serbia. Amongst countries with a significant effect of legitimacy, this lies between approximately .1 and .3 standard deviations.

**Table 2. Mediation analysis**

	DV: Legitimacy IV: Trust (1)	DV: Intention IV: Trust (2)	DV: Intention		Percentage Mediated (5)
			IV: Trust (3)	IV: Legitimacy (4)	
Armenia	0.624 ***	-0.061	-0.079	0.005	-
Belgium	0.406 ***	-0.139 ***	-0.037	-0.247 ***	73%
Bosnia & H.	0.550 ***	-0.019	0.005	-0.056	-
Cape Verde	0.338 ***	0.028	0.034	-0.032	-
Croatia	0.500 ***	-0.085 +	0.043	-0.253 ***	100%
Czech Rep.	0.441 ***	-0.148 ***	-0.072 *	-0.174 ***	51%
Denmark	0.393 ***	-0.122 **	-0.009	-0.279 ***	93%
England	0.587 ***	-0.177 *	-0.079	-0.169 *	55%
Estonia	0.349 ***	-0.101 ***	-0.055 +	-0.137 ***	46%
Finland	0.381 ***	-0.166 ***	-0.041	-0.311 ***	75%
France	0.527 ***	-0.252 ***	-0.063	-0.344 ***	75%
Germany	0.400 ***	-0.177 ***	-0.100 *	-0.192 ***	44%
India	0.267 ***	0.032	0.033	-0.012	-
Indonesia	0.571 ***	0.063	0.020	0.052	-
Italy	0.400 ***	-0.190 ***	-0.083 **	-0.264 ***	56%
Kosovo	0.333 ***	0.008	0.031	-0.083	-
Lithuania	0.495 ***	-0.074 *	-0.000	-0.153 ***	100%
Macedonia	0.465 ***	-0.073	-0.009	-0.141 ***	-
Netherlands	0.418 ***	-0.127 ***	-0.030	-0.229 ***	76%
Portugal	0.523 ***	-0.072 **	0.008	-0.156 ***	100%
Rep. Serbia	0.487 ***	-0.183 ***	-0.163 ***	-0.049	11%
Scotland	0.464 ***	-0.094 *	-0.041	-0.121 **	56%
Slovakia	0.389 ***	-0.143 ***	-0.092 *	-0.136 **	36%
Switzerland	0.365 ***	-0.140 ***	-0.071 *	-0.188 ***	49%
Ukraine	0.561 ***	-0.033	0.026	-0.112 *	-
USA	0.404 ***	-0.165 ***	-0.040	-0.303 ***	76%
Venezuela	0.405 ***	-0.007	0.015	-0.064 +	-
r2	.354	.177	.201		

Notes: N = 17,698; DV = dependent variable, IV = independent variable; effects estimated through single regressions including interactions between the predictor showed and country dummies; z-standardized coefficients; all models include gender, age, self-control, migration, family structure and country fixed effects; standard errors clustered at class level (not shown for visual ease); \*\*\*p < .001 \*\*p < .01 \*p < .05 +p < .1

Ideally we would have expected the total effect of trust on intention to offend to be significant and completely mediated through legitimacy for all countries, and also for the effect of legitimacy to be significant in all countries. Differences between countries may reflect genuine differences in cultural orientations to authority; equally, however, they may be due to the omission of relevant variables (also at the level of country) or differences in response style and other survey related errors. This is something that future studies should look at.

The results presented in this section provide clear support for some of the central hypotheses of procedural justice theory: just as other studies have shown for adults, the legitimacy that young people confer on the police is shaped to a significant degree by their trust in the police; and that in most countries, young people with a stronger sense of police legitimacy appear less willing to break the law.

*b. Effect of dimensions of trust on legitimacy amongst the 6 UPYC countries*

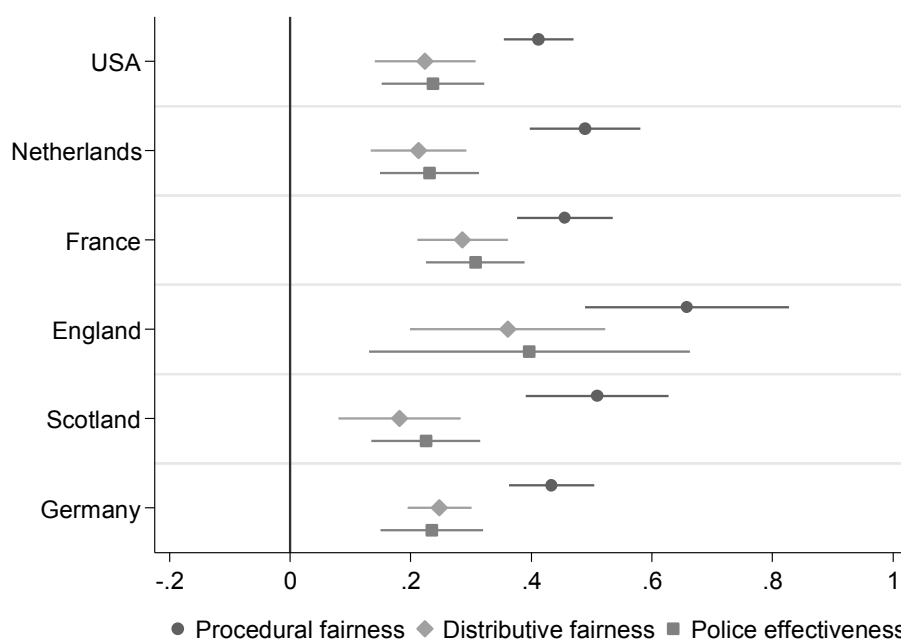
So far, this analysis has not disaggregated the variation dimensions of trust (trust in procedural fairness, in distributive fairness and in effectiveness); rather, we have combined all three dimensions into a single scale, creating a generalised measure of trust. In this section we move to a more detailed examination of the different dimensions of trust and the ways that they shape young people's perceptions of legitimacy. This analysis focusses on the six countries in the UPYC sub-study of ISRD3. One of the central tenets of procedural justice theory is that trust in procedural fairness is the principle 'driver' of perceptions of the legitimacy of legal authorities such as the police (Tyler 2003, 1990, Tyler and Huo 2002). Empirical studies have generally shown that trust in procedural fairness is a more important precursor of legitimacy than trust in fair outcomes, trust in distributive fairness, and trust in competence (Bradford 2014, Hough et al. 2017, 2014, 2013, Jackson et al. 2015, 2012). Similar findings emerge for young people.

Figure 4 shows that in all six UPYC countries the predictive effect of trust in procedural fairness on legitimacy is stronger than the other dimensions of trust. The average effect amongst all six countries of trust in procedural fairness on legitimacy is .46 standard deviations, compared to .25 and .26 for distributive fairness and police efficacy respectively.<sup>13</sup>

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<sup>13</sup> These estimates are not shown and come from the same regressions as in Figure 4 but without country interactions.



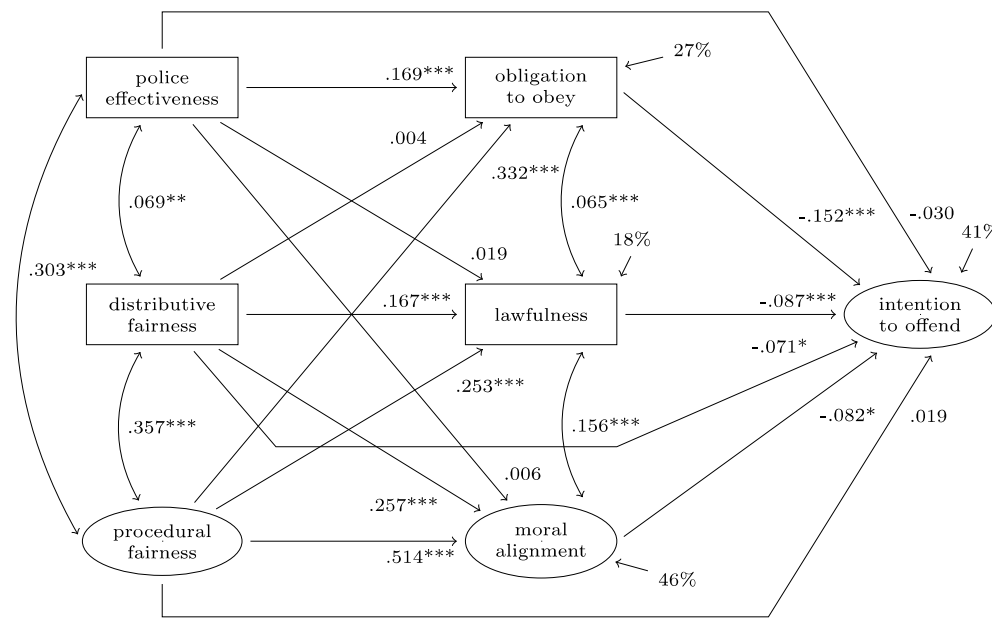
**Figure 4. Effect of procedural fairness, distributive fairness and police effectiveness on perceived legitimacy**

*Notes:* N = 3,267. Coefficients with 95% confidence intervals plotted, estimated through three regressions (one for each dimension of trust) including interactions between country dummies and the respective dimension of trust. All models control for gender, age, migration, family structure, self-control and country fixed effects and include cluster standard errors at the level of classes.

Going a step further, Figure 5 looks at the complete procedural justice model, including intention to offend as the dependent variable, and keeping all dimensions of trust and legitimacy separated.

Amongst the trust dimensions, trust in procedural fairness is the strongest predictor for all dimensions of legitimacy. Moral alignment is also significantly predicted by distributive fairness but not by police effectiveness. The opposite is true for obligation to obey: this dimension is also significantly predicted by police effectiveness, but is unaffected by distributive fairness. Amongst the dimensions of legitimacy, obligation to obey is the strongest predictor of intention to offend.

Figure 5. Complete procedural justice model



Notes: N = 3,534; structural equation modelling with categorical indicators (Mplus 7); standardised coefficients (StdYX); measurement models not shown for visual ease; all dependent variables in structural part are regressed on to gender, age, self-control, migration, traditional family and country fixed effects; standard errors clustered at class level; obligation to obey and moral alignment also allowed to covary (.112\*\*\*); Chi-square 393, df 87,  $p < .0001$ , CFI 0.978, TLI 0.953, RMSEA 0.032 (90% CI .028, .035); \*\*\* $p < .001$  \*\* $p < .01$  \* $p < .05$  + $p < .1$ .

Of all the dimensions of trust, only distributive fairness has a direct effect on intention to offend. Nevertheless all dimensions of trust have significant indirect and total effects on intention to offend (see Table 3). In other words, the complete effect of trust in police effectiveness and procedural fairness is mediated through the legitimacy dimensions. Procedural fairness has the strongest indirect effect on intention to offend (-.115 standard deviations) and taking its direct effect into account, the strongest total effect (-.133 standard deviations) of all the trust and legitimacy dimensions, besides duty to obey. The effect of procedural fairness is mediated through all dimensions of legitimacy, distributive fairness is mediated only through lawfulness, and moral alignment and trust in police effectiveness is completely mediated through obligation to obey.

**Table 3. Effects of trust dimensions on intention to offend, broken down into direct, indirect (through legitimacy) and total effects**

	Total direct	Legitimacy (indirect effects)				Total
		Obligation to obey	Lawfulness	Moral alignment	Total indirect	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Trust</i>						
Police effectiveness	-.030	-.026 ***	-.002	.000	-.028 ***	-.058 **
Distributive fairness	-.071 *	-.001	-.014 ***	-.021 *	-.036 ***	-.107 ***
Procedural fairness	.019	-.051 ***	-.022 ***	-.042 *	-.115 ***	-.133 ***

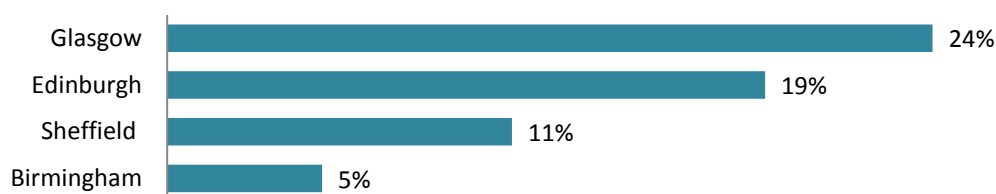
Notes: effects from model presented in Figure 5; standardised coefficients (StdYX); \*\*\*p < .001 \*\*p < .01 \*p < .05 +p < .1.

*c. The impact of stop-and-search on trust and legitimacy in England and Scotland*

The analysis in this section summarises findings reported more fully by Murray et al (2018 under review) on the effects of stop and search on trust and legitimacy in England and Scotland. Note that in the last decade, recorded stop and search rates in Scotland have outstripped those in England and Wales (around seven times over by 2012/13) (Lennon and Murray, 2016). In particular, the use of stop and search in Scotland has impacted disproportionately on teenagers, with the number of searches recorded on sixteen year old exceeding the resident population of sixteen year olds in some areas (Murray, 2014). Prompted by major policy and legislative reform, recorded search rates in Scotland fell steadily from mid-2015. Note however, that the UPYC fieldwork (and questionnaire time-frame) coincided with periods of high search activity in Scotland.

Consistent with police recorded data, the UPYC sub-study found sharp differences in the prevalence of stop and search between England and Scotland. In Scotland, just over a fifth (22%) of respondents said that they had been stopped and searched at least once by the police, around three times higher than the prevalence rate in England, at 7%. Looking at the four cities in the study, Figure 6 shows significant differences within the two jurisdictions, with a higher prevalence in Glasgow (24%) followed by Edinburgh (19%), Sheffield (11%) and Birmingham (5%).

**Figure 6. Lifetime prevalence of stop and search amongst 12 to 16 year olds in Glasgow, Edinburgh, Sheffield and Birmingham (%)**



(P=\*\*\* Cramer's V=.237 (ns  $p > 0.05$ , \* $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$ )

Differences in prevalence between England and Scotland are more pronounced when broken down by school grade. For example, in Scotland a third of respondents in Grade 9 (Secondary 4) said that they had been searched, around four times the equivalent rate in England (8%).

Given the differences in prevalence between the two jurisdictions, it is striking that trust in procedural fairness among older respondents was lower in Scotland than in England on two measures (explaining decisions and treating young people with respect). For instance a quarter (25%) of respondents in Scotland said that officers 'almost never' explain their decisions, compared to 19% in England, whilst a fifth (19%) of respondents in Scotland stated that the police 'almost never' treat young people with respect, compared to 14% in England.

Drawing on respondent's experience of police contact in England and Scotland, below we test the asymmetry hypothesis, which predicts that poor or badly handled contacts with the police have a strong negative impact on legitimacy, while positive experiences have either no impact at all, or only a marginal positive impact (Bradford et al. 2009; Skogan, 2006). Table 4 looks at the effect of being stopped by the police (in the last year), and the effect of police conduct (whether the officer was polite and respectful) on trust in the police and police legitimacy.

**Table 4. Stops by the police last year and experienced procedural fairness on trust and legitimacy: England and Scotland**

	Trust (1)	Trust (2)	Legitimacy (3)	Legitimacy (4)
Stopped last year	-.344 *** (.095)		-.418 *** (.079)	
Police behaved polite and respectful (reference: not stopped last year)				
Not at all		-.627 *** (.146)		-.840 *** (.134)
A bit		-.369 * (.146)		-.394 *** (.103)
Quite		.024 (.185)		-.379 + (.205)
Very		-.144 (.235)		.169 (.195)
r <sup>2</sup>	.086	.093	.393	.409

Note: N = 1,042; dependent variables are z-standardized; all models include gender, age, migration, traditional family, self-control, and city and grade fixed effects; models (3) and (4) also control for trust; standard errors clustered at class level; \*\*\*p < .001 \*\*p < .01 \*p < .05 +p < .1

Consistent with the asymmetry hypothesis, the results in Table 4 show that the experience of being stopped has a strong negative effect on trust and legitimacy (at -.344 and -.418 standard deviations respectively). The results also support the asymmetry thesis when taking into account officer conduct during the last contact (based on whether police were polite and respectful).<sup>14</sup> Table 4 shows that when the police are ‘not at all’ polite and respectful, the negative impact on trust and legitimacy is strongest (at -.627 and -.840 respectively). The impact on trust and legitimacy is also negative when police are ‘a bit’ polite and respectful (at -.369 and -.394 respectively). However, when the police are ‘quite’ or ‘very’ polite and respectful, the effect on trust is non-significant; while police behaviour that is ‘quite’ polite and respectful has a significant, albeit marginal negative effect on legitimacy. The coefficient for legitimacy is positive when the police are ‘very’ polite and respectful, however, this effect is not significant.

<sup>14</sup> The stop and search module includes two more questions about the experienced procedural fairness in the last contact with police (i.e. whether the police officers were professional and whether they were fair, see question 12.4 in Box 2). The results are qualitatively the same with the other two items measuring procedural fairness (results not shown and available upon request).

## Conclusions

Using the ISRD3 dataset, this chapter has tested several hypotheses generated by procedural justice theory. Overall, the findings show that young teenagers' attitudes towards the police have a similar dynamic to that established for adults. Trust in the police – which can be broken down into different forms of trust – engenders a sense of police legitimacy that is associated with a sense of *moral alignment*, *lawfulness* and *obligation to obey*; and teenagers who confer legitimacy on the police appear less willing to break the law. These findings appear to be robust across different countries – although the levels of trust and perceived legitimacy expressed by teenagers vary from country to country and the effects on intention to offend are not significant in all countries.

In several developing countries (i.e. Armenia, Bosnia and Herzegovina, Cape Verde, India, Indonesia and Kosovo) the effect of legitimacy and trust on intention to offend was not statistically significant. We cannot at this stage say whether or not this reflects limits to the applicability of procedural justice theory. It is certainly plausible that in those countries where policing institutions are fragile (with endemic underfunding and corruption, for example), rather different dynamics exist between trust, legitimacy and compliance. There may also be cultural differences in orientations to authority. Equally however, some of the non-findings may be a function of limited sample sizes, survey errors and fieldwork problems. Studies dealing in detail with developing countries are rather scarce (Bradford et al. 2014, Jackson et al. 2014, Johnson et al. 2014, Reisig and Lloyd 2009, Reisig et al. 2014, 2012, Tankebe 2009a, 2009b, 2008), while further analysis of cross-national surveys is needed to better explain general cultural differences, as well as other cross-cultural differences associated with, for example, survey answering styles or other survey related errors (for an overview see Harkness et al. 2010, 2003).

Cross-national datasets like ISRD3 provide the starting point for explaining differences in effects between countries.<sup>15</sup> Future research should dig into these differences, probably using multilevel models to include variables describing relevant contexts like school, neighbourhood, city and /or country (for a useful summary of factors related to perceptions of procedural justice in some of these contexts, see Weitzer 2010. For good examples of multilevel analyses including different data sources see Gau et al. 2012, Röder and Mühlau 2012, 2011). Further insights might also be drawn from procedural justice literature that looks at different cultural groups within countries, for instance, between ethnic groups (see e.g. the chapters by Roux [2018], and by Farren and Hough,

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<sup>15</sup> The research project “Police and Adolescents in Multiethnic Societies” or POLIS, is also a good example dealing with adolescents from Germany and France, see Oberwittler and Roché 2013.

[2018] in this volume and work by Bradford and colleagues (Bradford 2015, 2014, Bradford et al. 2017, 2015, Bradford and Jackson forthcoming).

On the positive side, the finding that trust predicts legitimacy as expected, across 28 very varied countries, suggest that the dynamics by which authority is legitimated through the construction of trust could well be a cultural universal. Regardless of levels of economic development or types of political structure, legitimacy flows from trust, and the key means by which authorities can build trust is to be found in principles of procedural justice: treating people respectfully and politely; listening to what they have to say; and explaining reasons for decisions.

Looking at the UK sample, the analysis confirms that the quality of contact with the police is an important determinant of trust, and through trust, a determinant of legitimacy. As with adults, the experience of being stopped and searched can shape attitudes significantly, and as with adults, police contact that is judged to be procedurally unfair erodes trust markedly, whilst fair treatment has only a marginally positive effect. This demonstration that the ‘asymmetry effect’ is as powerful for teenagers as for adults carries important policy implications, implying that heavy-handed policing of teenagers can lay solid foundations for years of hostility towards the police.

We should be clear about the limitations of this analysis. The tidiness of a quantitative dataset, especially when it is derived from an international survey, can mask the complex processes by which it was constructed. There are variations between countries in the precise methodology (such as sampling and fieldwork procedure); there are issues relating to translation, and even more complicated issues to do with lack of conceptual equivalence across countries and cultures. These problems – which undoubtedly exist within ISRD3 – probably serve to increase the ratio between ‘noise’ and ‘signal’ in interpreting the findings. In other words, they are more likely to mask significant findings, and less likely to lead us to false conclusions.<sup>16</sup> We therefore draw some comfort from the clarity of the findings that we have presented here.

A different sort of criticism is that our data comprise a large number of highly inter-correlated variables; and that we have arbitrarily assigned these to measure different constructs, enabling us to point to the way in which scores on one construct can predict scores on another. There are two responses to this: first, the different measures that we have used are the result of quite extensive confirmatory factor analysis (reported in Murray et al., 2018, under review); and second, the

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<sup>16</sup> As wisely stated by Kohn in his influential presidential address at the American Sociological Association 30 years ago (1987: 720): “when one finds cross-national similarities despite differences in research design, even despite defects in some of the studies, it is unlikely that the similar findings were actually produced by the methodological differences”.

relationships that we have found closely match the pre-specified hypotheses that we wanted to examine.

Perhaps a more serious shortcoming is that snap-shot surveys of this sort are poor at identifying causal order. We have argued that procedurally unfair treatment damages trust, which erodes legitimacy and increases propensity to break the law. The same data could support a reversed causal sequence: that teenagers who are inclined to break the law confer low legitimacy on the police (for example to avoid the cognitive dissonance that they would otherwise experience) and are disinclined to trust the police. And when faced with defiant and uncooperative teenagers of this sort, the police may well dispense rougher justice than normal. This argument needs to be taken seriously. One response is that more experimental or quasi-experimental research should be added to the existing one (Jackson 2015, Janssen et al. 2011, Mazerolle et al. 2013, Murphy et al. 2014, Paternoster et al. 1997, Stroessner and Heuer 1996, Tyler et al. 2007), to nail down the evidence about causal ordering. We suspect that sensitively conducted research is likely to find a complex and dynamic interaction between propensity to offend and the quality of policing. Hard policing may amplify teenagers' likelihood to break the law; but their offending and associated behaviour may also prompt tough police responses. However, we would point to our – important – findings about the differences between levels of stop-and-search in England and Scotland, and the demonstrable damage that intensive use of this tactic causes to trust in the police and police legitimacy (Murray et al., 2018 under review).

The significant point for policy is that if the police make the wrong choices when responding to defiant and disrespectful teenagers, they may construct a 'hard power trap' for themselves. We have argued elsewhere (Hough 2013, Hough et al. 2017) that police officers can find themselves trapped in adversarial styles of policing. Once relationships between police and community have become, for whatever reason, abrasive and adversarial, the former are likely to have only limited room for manoeuvre in recovering a policing style grounded on principles of procedural justice.



## References

- Bottoms, A., & Tankebe, J. (2012). Beyond Procedural Justice: A Dialogic Approach to Legitimacy in Criminal Justice. *Journal of Criminal Law and Criminology*, 102(1), pp. 119-170.
- Bradford, B. (2014). Policing and social identity: procedural justice, inclusion and cooperation between police and public. *Policing & Society*, 24(1), pp. 22-43.
- Bradford, B. (2015). Unintended Consequences. In R. Delsol, & M. Shiner, *Stop and search - The anatomy of a police power* (pp. 102-122). New York: Palgrave Macmillan.
- Bradford, B. (2017). *Stop and search and police legitimacy*. Abingdon, Oxon; New York, NY: ROUTLEDGE.
- Bradford, B., & Jackson, J. (forthcoming). Police legitimacy among immigrants in Europe. *European Journal of Criminology*.
- Bradford, B., Hohl, K., Jackson, J., & MacQueen, S. (2015). Obeying the Rules of the Road: Procedural Justice, Social Identity, and Normative Compliance. *Journal of Contemporary Criminal Justice*, 31(2), pp. 171-191.
- Bradford, B., Huq, A., Jackson, J., & Roberts, B. (2014). What price fairness when security is at stake? Police legitimacy in South Africa. *Regulation & Governance*, 8, pp. 246-268.
- Bradford, B., Jackson, J., & Hough, M. (2017). Ethnicity, Group Position and Police Legitimacy: Early Findings from the European Social Surve. In D. Oberwittler, & S. Roché, *POLICE-CITIZEN RELATIONS ACROSS THE WORLD - Comparing sources and contexts of trust and legitimacy*. ROUTLEDGE.
- Bradford, B., Jackson, J., & Stanko, E. A. (2009). Contact and confidence: revisiting the impact of public encounters with the police. *Policing & Society*, 19(1), pp. 20-46.
- Cohen, P., Cohen, J., Aiken, L. S., & West, S. G. (1999). The problem of units and the circumstance for POMP. *Multivariate Behavioral Research*, 34, S. 315-346.
- Delsol, R., & Shiner, M. (2006). Regulating Stop and Search: A Challenge for Police and Community Relations in England and Wales. *Critical Criminology*, 14, pp. 241-263.
- Delsol, R., & Shiner, M. (2015). *Stop and search - The anatomy of a police power*. New York: Palgrave Macmillan.
- Enzmann, D., Kivivuori, J., Marshall, I. H., Steketee, M., Hough, M., & Killias, M. (2018). *A Global Perspective on Young People As Offenders and Victims: First Results from the ISRD3 Study*. New York: Springer.
- Fagan, J., & Tyler, T. R. (2005). Legal Socialization of Children and Adolescents. *Social Justice Research*, 18(3), pp. 217-242.
- Farren, D. and Hough, M. (2018) 'Teenagers' perceptions of legitimacy and preparedness to break the law: the impact of migrant and ethnic minority status' in (eds.) Roché, S. and Hough, M. *Minorities, Institutions and Social Cohesion in Europe and the US: findings from the third International Self-Report Delinquency Study*. New York: Springer.
- Flacks, S. (2017). The stop and search of minors: A 'vital police tool'? *Criminology & Criminal Justice*, pp. 1-21.

- Gau, J. M. (2011). The Convergent and Discriminant Validity of Procedural Justice and Police Legitimacy: An Empirical Test of Core Theoretical Propositions. *Journal of Criminal Justice*, 39, pp. 489-498.
- Gau, J. M. (2015). Procedural justice, police legitimacy, and legal cynicism: a test for mediation effects. *Police Practice and Research*, 16(5), pp. 402-415.
- Gau, J. M., & Brunson, R. K. (2010). Procedural Justice and Order Maintenance Policing: A Study of Inner-City Young Men's Perceptions of Police Legitimacy. *Justice Quarterly*, 27(2), pp. 255-279.
- Gau, J. M., Corsaro, N., Stewart, E. A., & Brunson, R. K. (2012). Examining macro-level impacts on procedural justice and police legitimacy. *Journal of Criminal Justice*, 40, pp. 333-343.
- Harkness, J. A., Braun, M., Edwards, B., Johnson, T. P., Lyberg, L., Mohler, P. P., . . . Smith, T. W. (2010). *Survey methods in multinational, multiregional and multicultural contexts*. Hoboken, N.J.: J. Wiley & Sons Inc.
- Harkness, J. A., Vijver, F. J., & Mohler, P. P. (2003). *Cross-cultural survey methods*. Hoboken, NJ: Wiley.
- Hinds, L. (2007). Building Police–Youth Relationships: The Importance of Procedural Justice. *Youth Justice*, 7(3), S. 195-209.
- Hinds, L. (2009). Youth, police legitimacy and informal contact. *Journal of Police and Criminal Psychology*, 24(1), pp. 10-21.
- Hough, M. (2013). Procedural justice and professional policing in times of austerity. *Criminology & Criminal Justice*, pp. 181-197.
- Hough, M., Jackson, J., & Bradford, B. (2013). Legitimacy, Trust, and Compliance: An Empirical Test of Procedural Justice Theory Using the European Social Survey. In J. Tankebe, & A. Liebling, *Legitimacy and Criminal Justice - An International Exploration* (pp. 326–352). Oxford: OUP Oxford.
- Hough, M., Jackson, J., & Bradford, B. (2014). Trust in justice and the legitimacy of legal authorities - Topline findings from a european comparative study. In S. Body-Gendrot, M. Hough, K. Kerezi, R. Lévy, & S. Snacken, *The Routledge Handbook of European Criminology* (pp. 243-265). London: ROUTLEDGE.
- Hough, M., Jackson, J., & Bradford, B. (2017). Policing, procedural justice and prevention. In N. Tilley, & A. Sidebottom, *Handbook of crime prevention and community safety* (Second edition ed., pp. 274–293). Abingdon, Oxon; New York, NY: ROUTLEDGE.
- Hough, M., Jackson, J., Bradford, B., Myhill, A., & Quinton, P. (2010). Procedural Justice, Trust, and Institutional Legitimacy. *Policing*, 4(3), pp. 203-210.
- Jackson, J. (2015). On the Dual Motivational Force of Legitimate Authority. In B. H. Bornstein, & A. J. Tomkins, *Motivating Cooperation and Compliance with Authority - The Role of Institutional Trust* (S. 145-166). Springer.
- Jackson, J., & Bradford, B. (2010). Police Legitimacy: A Conceptual Review. *SSRN Journal* (SSRN Electronic Journal).

- Jackson, J., & Gau, J. M. (2016). Carving Up Concepts? Differentiating Between Trust and Legitimacy in Public Attitudes Towards Legal Authority. In E. Shockley, T. M. Neal, L. M. PytlikZillig, & B. H. Bornstein, *Interdisciplinary Perspectives on Trust - Towards Theoretical and Methodological Integration* (pp. 49-69). Cham: Springer International Publishing.
- Jackson, J., Asif, M., Bradford, B., & Zakar, M. Z. (2014). Corruption and Police Legitimacy in Lahore, Pakistan. *British Journal of Criminology*, 54, pp. 1067–1088.
- Jackson, J., Bradford, B., Hough, M., Kuha, J., Stares, S., Widdop, S., Fitzgerald, R., Yordanova, M., Galey, T. (2011). Developing European indicators of trust in justice. *European Journal of Criminology*, 8(4), pp. 267–285.
- Jackson, J., Bradford, B., Hough, M., Myhill, A., Quinton, P., & Tyler, T. R. (2012). Why do People Comply with the Law? Legitimacy and the Influence of Legal Institutions. *British Journal of Criminology*, 52(6), pp. 1051–1071.
- Jackson, J., Hough, M., Bradford, B., & Kuha, J. (2015). Empirical Legitimacy as Two Connected Psychological States. In G. Meško, & J. Tankebe, *Trust and Legitimacy in Criminal Justice - European Perspectives* (pp. 137-160). Springer.
- Janssen, J., Müller, P. A., & Greifeneder, R. (2011). Cognitive processes in procedural justice judgments: The role of ease-of-retrieval, uncertainty, and experience. *Journal of Organizational Behavior*, 32(5), pp. 726-750.
- Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research. *J CONSUM RES (Journal of Consumer Research)*, 30(2), pp. 199-218.
- Jennings, W. G., Loeber, R., Pardini, D. A., Piquero, A. R., & Farrington, D. P. (2016). *Offending from Childhood to Young Adulthood*. Cham: Springer International Publishing.
- Johnson, D., Maguire, E. R., & Kuhns, J. B. (2014). Public Perceptions of the Legitimacy of the Law and Legal Authorities: Evidence from the Caribbean. *Law & Soc'y Rev (Law & Society Review)*, 48(4), pp. 947–978.
- Kohn, M. L. (1987). Cross-National Research as an Analytic Strategy: American Sociological Association, 1987 Presidential Address. *American Sociological Review*, 52(6), pp. 713-731.
- Lennon, G., & Murray, K. (2016). Under-regulated and unaccountable? Explaining variation in stop and search rates in Scotland, England and Wales. *Policing and Society*, pp. 1-18.
- Maillard, J. d., Hunold, D., Roché, S., & Oberwittler, D. (2016). Different styles of policing: discretionary power in street controls by the public police in France and Germany. *Policing and Society*, pp. 1-14.
- Mazerolle, L., Antrobus, E., Bennett, S., & Tyler, T. R. (2013). Shaping Citizen Perceptions of Police Legitimacy: A Randomized Field Trial of Procedural Justice. *Criminology*, 51(1), pp. 33-64.
- Murphy, K. (2015). Does procedural justice matter to youth? Comparing adults' and youths' willingness to collaborate with police. *Policing and Society*, 25(1), pp. 53-76.
- Murphy, K., Mazerolle, L., & Bennett, S. (2014). Promoting trust in police: findings from a randomised experimental field trial of procedural justice policing. *Policing and Society*, 24(4), pp. 405-424.

- Murray, K. (2014). Stop and search in Scotland: An evaluation. Research Report 1/2014, Scottish Centre for Crime and Justice.
- Murray, K. (2015). The Proactive Turn: Stop and Search in Scotland. PhD Thesis, University of Edinburgh.
- Murray, K., & Harkin, D. (2017). Policing in Cool and Hot Climates: Legitimacy, Power and The Rise and Fall of Mass Stop and Search in Scotland. *British Journal of Criminology*, 57, pp. 885-905.
- Murray, K., McVie, S., Farren, D., Hough, M. (under review). Policing young people in the UK: the drivers of police legitimacy and the impact of stop and search. *British Journal of Criminology*.
- Oberwittler, D., & Roché, S. (2013). Experiences, perceptions and attitudes – variations of police-adolescents relationships in French and German cities. *Criminology in Europe - Newsletter of the European Society of Criminology*, 12(3), pp. 4-10.
- Paternoster, R., Brame, R., Bachman, R., & Sherman, L. W. (1997). Do Fair Procedures Matter? The Effect of Procedural Justice on Spouse Assault. *Law & Society Review*, 31(1), pp. 163-204.
- Piquero, A. R., Fagan, J., Mulvey, E. P., Steinberg, L., & Odgers, C. (2005). Developmental Trajectories of Legal Socialization Among Serious Adolescent Offenders. *Journal of Criminal Law and Criminology*, 96(1), pp. 267–298.
- Reid Howie Associates (2002). Police stop and search among white and minority ethnic young people in Scotland. Edinburgh: Scottish Executive.
- Reisig, M. D., & Lloyd, C. (2009). Procedural Justice, Police Legitimacy, and Helping the Police Fight Crime - Results From a Survey of Jamaican Adolescents. *Police Quarterly*, 12(1).
- Reisig, M. D., Bratton, J., & Gertz, M. G. (2007). The Construct Validity and Refinement of Process-Based Policing Measures. *Criminal Justice and Behavior*, 34(8), 1005-1028.
- Reisig, M. D., Tankebe, J., & Meško, G. (2012). Procedural Justice, Police Legitimacy, and Public Cooperation with the Police Among Young Slovene Adults. *VARSTVOSLOVJE, Journal of Criminal Justice and Security*, 14(2), pp. 147-164.
- Reisig, M. D., Tankebe, J., & Meško, G. (2014). Compliance with the Law in Slovenia: The Role of Procedural Justice and Police Legitimacy. *European Journal on Criminal Policy and Research*, 20, pp. 259–276.
- Röder, A., & Mühlau, P. (2011). Discrimination, Exclusion and Immigrants' Confidence in Public Institutions in Europe. *European Societies*, 13(4), pp. 535-557.
- Röder, A., & Mühlau, P. (2012). What determines the trust of immigrants in criminal justice institutions in Europe? *European Journal of Criminology*, 9(4), pp. 370–387.
- Roux, G. (2108) 'Perception of police unfairness amongst stigmatized groups: the impact of ethnicity, Islamic affiliation and neighbourhood.' in (eds.) Roché, S. and Hough, M. *Minorities, Institutions and Social Cohesion in Europe and the US: findings from the third International Self-Report Delinquency Study*. New York: Springer

- Scott, J. (2015). The Report of the Advisory Group on Stop and Search. Scottish Government.
- Sharp, D., & Atherton, S. (2007). To Serve and Protect? The Experiences of Policing in the Community of Young People from Black and Other Ethnic Minority Groups. *British Journal of Criminology*, 47, pp. 746-763.
- Skogan, W. G. (2006). Asymmetry in the Impact of Encounters with Police. *Policing and Society*, 16(2), pp. 99-126.
- StopWatch. (2017). Most 'stop and search' is ineffective and fails communities worst affected by knife crime. Retrieved August 2, 2017, from StopWatch: <http://www.stop-watch.org/news-comment/story/most-stop-and-search-is-ineffective-and-fails-communities-worst-affected-by>
- Stroessner, S. J., & Heuer, L. B. (1996). Cognitive Bias in Procedural Justice: Formation and Implications of Illusory Correlations in Perceived Intergroup Fairness. *Journal of Personality and Social Psychology*, 71(4), pp. 717-728.
- Tankebe, J. (2008). Police effectiveness and police trustworthiness in Ghana: An empirical appraisal. *Criminology & Criminal Justice*, 8(2), pp. 185-202.
- Tankebe, J. (2009a). Public Cooperation with the Police in Ghana: Does Procedural Fairness Matter? *Criminology*, 47(4), pp. 1265-1293.
- Tankebe, J. (2009b). Self-Help, Policing, and Procedural Justice: Ghanaian Vigilantism and the Rule of Law. *Law & Society Review*, 43(2), pp. 245-270.
- Tankebe, J. (2013). Viewing Things Differently: The Dimensions of Public Perceptions of Police Legitimacy. *Criminology*, 51(1), pp. 103-135.
- Tankebe, J., Reisig, M. D., & Wang, X. (2016). A Multidimensional Model of Police Legitimacy: A Cross-Cultural Assessment. *Law and Human Behavior*, 40(1), pp. 11-22.
- Tyler, T. R. (1990). *Why people obey the law*. New Haven: Yale University Press.
- Tyler, T. R. (2003). Procedural Justice, Legitimacy, and the Effective Rule of Law. *Crime and Justice*, 30, pp. 283-357.
- Tyler, T. R. (2004). Enhancing Police Legitimacy. *The Annals of the American Academy*, 593, pp. 84-99.
- Tyler, T. R. (2006). Psychological perspectives on legitimacy and legitimation. *Annual Review of Psychology*, 57, pp. 375-400.
- Tyler, T. R. (2011). *Why people cooperate: The role of social motivations*. Princeton, N.J: Princeton University Press.
- Tyler, T. R., & Fagan, J. (2012). The Impact of Stop and Frisk Policies upon Police Legitimacy. In N. L. Vigne, P. Lachman, A. Matthews, & S. R. Neusteter, *Key issues in the police use of pedestrian stops and searches: Discussion papers from an urban institute roundtable* (pp. 30-36). Washington, DC: Urban Institute.
- Tyler, T. R., & Huo, Y. J. (2002). *Trust in the law: Encouraging public cooperation with the police and courts*. New York: Russell Sage Foundation.

- Tyler, T. R., & Jackson, J. (2013). Future Challenges in the Study of Legitimacy and Criminal Justice. In J. Tankebe, & A. Liebling, *Legitimacy and Criminal Justice - An International Exploration* (pp. 83-104). Oxford: OUP Oxford.
- Tyler, T. R., Sherman, L., Strang, H., Barnes, G. C., & Woods, D. (2007). Reintegrative Shaming, Procedural Justice, and Recidivism: The Engagement of Offenders' Psychological Mechanisms in the Canberra RISE Drinking-and-Driving Experiment. *Law & Society Review*, 41(3), pp. 553-585.
- Weitzer, R. (2010). Race and Policing in Different Ecological Contexts. In S. K. Rice, & M. D. White, *Race, Ethnicity, and Policing: New and Essential Readings* (pp. 118-139). New York: NYU Press.
- Wolfe, S. E. (2011). The effect of low self-control on perceived police legitimacy. *Journal of Criminal Justice*, 39, pp. 67-74.
- Wolfe, S. E., Nix, J., Kaminski, R., & Rojek, J. (2016). Is the Effect of Procedural Justice on Police Legitimacy Invariant? Testing the Generality of Procedural Justice and Competing Antecedents of Legitimacy. *Journal of Quantitative Criminology*, 32, pp. 253-282.